

# BIOGRAPHICAL SKETCH

June 10, 2023

## PERSONAL DETAILS

Name: Daiju Fukuda, M.D., Ph.D.

Nationality: Japanese

## IDENTICAL INFORMATION

Business Address: Department of Cardiovascular Medicine, Osaka Metropolitan University Graduate School of Medicine

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## EDUCATION

1997 M.D. from Osaka City University, Medical School

2003 Ph.D. from Osaka City University Graduate School of Medicine, Department of Cardiovascular Medicine

## Positions/Employment

- 1997(May)-1999(Apr); Resident in First Department of Internal Medicine, Osaka City University Hospital, Osaka, Japan
- 2003(Apr)-2007(Aug); Research Fellow in Department of Cardiovascular Medicine, University of Tokyo Graduate School of Medicine
- 2007(Sep)-2012(Mar); Research Fellow in Department of Cardiovascular Medicine, Brigham and Women's Hospital, Harvard Medical School
- 2012(Apr)-2019(Jun); Assistant Professor in the Department of Cardio-Diabetes Medicine, Institute of Biomedical Sciences, Tokushima University Graduate School
- 2019(Jul)-2020(Dec); Associate Professor in the Department of Cardio-Diabetes Medicine, Institute of Biomedical Sciences, Tokushima University Graduate School
- 2021(Jan)-2021(Dec); Associate Professor in the Department of Cardiovascular Medicine, Institute of Biomedical Sciences, Tokushima University Graduate School
- 2022(Jan)-Present; Professor in the Department of Cardiovascular Medicine, Osaka Metropolitan University Graduate School of Medicine

## Qualifications such as certified physician

The Japanese Society of Internal Medicine: Board Certified Member, Fellow and Instructor, Kinki branch councilor

The Japanese Circulation Society: Board Certified Member, Kinki branch councilor, Fellow (FJCS)

Japanese College of Cardiology: Fellow (FJCC)

Japan Atherosclerosis Society: Arteriosclerosis specialist and Instructor, Councilor  
Japan Society for Vascular Failure: Director  
The Japanese Vascular Biology and Medicine Organization: Councilor  
Japanese Society for Circulation Research: Councilor  
The Japanese Onco-Cardiology Society: Councilor  
Japanese Association of Cardiovascular Intervention and Therapeutics  
The Japanese Society of Inflammation and Regeneration  
American Heart Association: Fellow (FAHA)  
Fellow of European Society of Cardiology: Fellow (FESC)

### Awards and Honors

- 2004 The CCT 2004 Award for Excellent presentation (Complex Catheter Therapeutics)
- 2005 Award of Osaka City Mayor (Osaka City)
- 2006 Intervention Research Award (Japanese Society of Interventional Cardiology)
- 2007 Young Investigator's Award (Japanese Circulation Society)
- 2010 Young Investigator's Award (International Society for Applied Cardiovascular Biology)
- 2012 The 2<sup>nd</sup> Annual Obesity Research Incubator Session Award (The Cardiovascular, Diabetes and Metabolic Diseases Research Center at the BWH Biomedical Research Institute)
- 2013 Young Investigator Imura Award (The Japan Research Foundation for Healthy Aging)
- 2019 The Dean of Tokushima University Graduate School of Medical Sciences Award (Tokushima University)

### Peer Reviewed Publications

1. Yamaguchi Y, Shibata A, Yoshida T, Tanihata A, Hayashi H, Kitada R, Ehara S, Izumiya Y, **Fukuda D**. Epicardial adipose tissue volume is an independent predictor of left ventricular reverse remodeling in patients with non-ischemic cardiomyopathy. *Int J Cardiol*. 2022, in press.
2. **Fukuda D**, Pham PT, Sata M. Emerging Roles of the Innate Immune System Regulated by DNA Sensors in the Development of Vascular and Metabolic Diseases. *J Atheroscler Thromb*. 2022;29(3):297-307.
3. Pham PT\*, **Fukuda D**\*, Nishimoto S, Kim-Kaneyama JR, Lei XF, Takahashi Y, Sato T, Tanaka K, Suto K, Kawabata Y, Yamaguchi K, Yagi S, Kusunose K, Yamada H, Soeki T, Wakatsuki T, Shimada K, Kanematsu Y, Takagi Y, Shimabukuro M, Setou M, Barber GN, Sata M. STING, a cytosolic DNA sensor, plays a critical role in atherogenesis: A link between innate immunity and chronic inflammation caused by lifestyle-related diseases. *Eur Heart J*. 2021;42(42):4336–4348. (\*; equal contribution)
4. Nishimoto S, **Fukuda D**, Sata M. Emerging roles of Toll-like receptor 9 in cardiometabolic disorders. *Inflamm Regen*. 2020;40:18.
5. **Fukuda D**\*, Nishimoto S\*, Aini K, Tanaka A, Nishiguchi T, Kim-Kaneyama JR, Lei XF, Masuda K, Naruto T, Tanaka K, Higashikuni Y, Hirata Y, Yagi S, Kusunose K, Yamada H, Soeki T, Imoto I, Akasaka T, Shimabukuro M, Sata, M. Toll-Like Receptor 9 Plays a Pivotal Role in Angiotensin II-Induced Atherosclerosis. *J Am Heart Assoc*. 2019;8:e010860. (\*; equal contribution)
6. Nishimoto S\*, Kunduziayi A\*, **Fukuda D**, Higashikuni Y, Tanaka K, Hirata Y, Yagi Y, Kusunose K, Yamada H, Soeki T, Shimabukuro M, Sata M. Activation of Toll-like Receptor 9 Impairs Blood Flow Recovery After Hind-limb Ischemia. *Front Cardiovasc Med*. 2018;5:144. (\*; equal

- contribution)
7. Hara T\*, Phuong PT\*, **Fukuda D**, Yamaguchi K, Murata C, Nishimoto S, Yagi S, Kusunose K, Yamada H, Soeki T, Wakatsuki T, Imoto I, Shimabukuro M, Sata M. Protease-Activated Receptor-2 Plays a Critical Role in Vascular Inflammation and Atherosclerosis in Apolipoprotein E-deficient Mice. *Circulation*. 2018;138:1706-1719. (\*; equal contribution)
  8. Nishimoto S\*, **Fukuda D**\*, Higashikuni Y, Tanaka K, Hirata Y, Murata C, Kim-Kaneyama JR, Sato F, Bando M, Yagi S, Soeki T, Hayashi T, Imoto I, Sakaue H, Shimabukuro M, Sata M. Obesity-induced DNA released from adipocytes stimulates chronic adipose tissue inflammation and insulin resistance. *Sci Adv*. 2016;2:e1501332. (\*; equally contribution)
  9. Bando S, **Fukuda D**, Soeki T, Nishimoto S, Uematsu E, Matsuura T, Ise T, Tobiume T, Yamaguchi K, Yagi S, Iwase T, Yamada H, Wakatsuki T, Shimabukuro M and Sata M. Expression of NLRP3 in subcutaneous adipose tissue is associated with coronary atherosclerosis. *Atherosclerosis*. 2015;242:407-414.
  10. **Fukuda D**, Aikawa E, Swirski FK, Novobrantseva TI, Kotelianski V, Gorgun C, Chudnovskiy A, Yamazaki H, Croce K, Weissleder R, Aster JC, Hotamisligil GS, Yagita H, Aikawa M. Notch ligand Delta-like 4 blockade attenuates atherosclerosis and metabolic disorders. *Proc Natl Acad Sci U S A*. 2012 Jul3;109:E1868-E1877.
  11. **Fukuda D**, Sata M, Tanaka K, Nagai R. Potent inhibitory effect of sirolimus on circulating vascular progenitor cells. *Circulation*. 2005;111(7):926-931.
  12. **Fukuda D**, Shimada K, Tanaka A, Kawarabayashi T, Yoshiyama M, Yoshikawa J. Circulating monocytes and in-stent neointima after coronary stent implantation. *J Am Coll Cardiol*. 2004;43(1):18-23.
  13. **Fukuda D**, Kawarabayashi T, Tanaka A, Nishibori Y, Taguchi H, Nishida Y, Shimada K, Yoshikawa J. Lesion characteristics of acute myocardial infarction: an investigation with intravascular ultrasound. *Heart*. 2001;85(4):402-406.